

62719-259

2-12-2004

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

FEB 12 2004

Ms. Kimberly S. Gilbert
Regulatory Manager
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Dear Ms. Gilbert:

Subject: Transline*

Registration No. 62719-259 ✓

Application and Letter Dated March 4, 2003, Request To Amend Registration with Revised Labeling as Described on the Application and in the Letter; Your Letter Dated June 16, 2003 with Resubmission of Labeling in Response To This Agency's Letter Dated March 27, 2003; and Your Letter Dated December 4, 2003 in Response to This Agency's Letter Dated November 21, 2003 with Revised Labeling and Explanation Regarding Acute Toxicology Data Required for Product Registration

The resubmitted labeling associated with your request to amend the subject pesticide product registration has been reviewed and found acceptable under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, based on the review of the acute toxicity data cited in your June 16, 2003 letter provided that you:

1. Either delete the word "selective" as it appears on the labeling or describe the meaning of this descriptor as it applies to the labeling that follows or is referred to.
2. Either delete the word "specialty" herbicide as a descriptor of this pesticide product or describe why it is a "specialty herbicide", where it appears on the labeling.
3. Delete the claim under "Precautions and Restrictions" section on page 6 that reads: "Use directions in Dow AgroSciences supplemental labeling may modify directions or limitations in this labeling."; and modify the claim "Grasses are tolerant to Transline, but" by deleting this part of the claim. The sentence should read: "New grass seedlings may be injured.....".

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4. On page 9, the use cite "natural areas" must be deleted. Non-crop areas includes such areas. Under "Stump Treatment" describe when to use the undiluted Transline or with a 50/50 mix of Transline.
5. On page 13, revise under "Specific Use Precautions" the construction "**spray avoids** all contact with tree foliage." to indicate the unless the applicator can be certain that the spray and spray mist will not contact tree foliage, do not apply as a tank mix with other herbicides.
6. Revise the "Precautionary Statements" and "First Aid" to read as stated in the enclosed February 4, 2004 "Acute Toxicology and Precautionary" review for this product.
7. Submit one (1) copy of the final printed label prior to your shipment of this pesticide product under the enclosed revised label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment under this labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Sincerely yours,

ISI

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure (2)

ACCEPTED
With COMMENTS
in the letter dated
FEB 12 2004

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(Base Label):

(Logo) Dow AgroSciences

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
62719-259

Transline*

For selective control of broadleaf weeds and select woody brush species in non-cropland areas, forest sites, industrial manufacturing and storage sites, rights-of-way, and wildlife openings, including grazed areas on these sites, tree plantations, and rangeland and permanent grass pastures.

Active Ingredient:

clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt..... 40.9%

Inert Ingredients 59.1%

Total 100.0%

Acid Equivalent:

3,6-dichloro-2-pyridinecarboxylic acid - 31% (3 lb/gal)

Keep Out of Reach of Children

CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin

Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes.

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils containing sinkholes over limestone bedrock, severely fractured surfaces, and substrates which would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-259

EPA Est. _____

*Trademark of Dow AgroSciences LLC
Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

Specialty Herbicide

Net Contents __

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(Datapack Cover):

(Logo) Dow AgroSciences

Transline*

For selective control of broadleaf weeds and select woody brush species in non-cropland areas, forest sites, industrial manufacturing and storage sites, rights-of-way, and wildlife openings, including grazed areas on these sites, tree plantations, and rangeland and permanent grass pastures.

Active Ingredient:

 clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt..... 40.9%

Inert ingredients 59.1%

Total 100.0%

Acid Equivalent:

 3,6-dichloro-2-pyridinecarboxylic acid - 31% (3 lb/gal)

Keep Out of Reach of Children

CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

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Specialty Herbicide

Net Contents _____

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(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin

Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark.

Clopyralid is a chemical which can travel (seep or leach) through soil and under certain conditions contaminate groundwater which may be used for irrigation or drinking purposes. Users are advised not to apply clopyralid where soils have a rapid to very rapid permeability throughout the profile (such as loamy sand to sand) and the water table of an underlying aquifer is shallow, or to soils that would allow direct introduction into an aquifer. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to fallow cropland, rangeland, pasture, and non-crop areas, do not enter treated areas until sprays have dried. For early entry to treated areas, wear eye protection, chemical-resistant gloves made of any waterproof material, long-sleeved shirt, long pants, shoes and socks.

Storage and Disposal

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage: Store above 28°F or warm to 40°F and agitate before use.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

General Information

Transline* specialty herbicide is recommended for selective, postemergence control of broadleaf weeds and select woody brush species in non-cropland areas including equipment pathways, industrial manufacturing and storage sites, forest sites and rights-of-way, such as along roadsides, electrical lines and railroads. Use on these sites may include application to grazed areas as well as establishment and maintenance of wildlife openings, wild parkland and wildlife management areas, and forest spot application adjacent to these sites. Transline is labeled for control of broadleaf weeds in cottonwood/poplar and eucalyptus tree plantations; and in rangeland and permanent grass pastures in certain western states.

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Precautions and Restrictions

- **In Arizona:** The state of Arizona has not approved Transline for use on plants grown for agricultural/commercial production; such as on designated grazing areas.
- Use directions in Dow AgroSciences supplemental labeling may modify directions or limitations in this labeling.
- Do not contaminate irrigation ditches or water used for irrigation or domestic purposes.
- Do not use in greenhouses.
- **In California,** the maximum application rate is 2/3 pint per acre per annual use season.
- **In Florida,** Transline can be used only in the following counties: Bay, Bradford, Calhoun, Escambia, Franklin, Gadsden, Gulf, Hamilton, Holmes, Jackson, Jefferson, Lafayette, Leon, Liberty, Madison, Okaloosa, Santa Rose, Suwannee, Taylor, Wakulla, Walton, and Washington.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Rotation to Broadleaf Crops:** Do not plant broadleaf crops in treated areas until an adequately sensitive bioassay crop such as soybean or other legume shows that no detectable clopyralid is present in the soil.
- **Grazing/Haying:** There are no restrictions on grazing or hay harvest following application of Transline at labeled rates.
- **Do not transfer livestock** from treated grazing areas (or feeding of treated hay) to sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated pasture (or feeding of untreated hay). If livestock are transferred within less than 7 days of grazing untreated pasture or eating untreated hay, urine and manure may contain enough clopyralid to cause injury to sensitive broadleaf plants.
- Some desirable broadleaf plants (forbs) are susceptible to Transline. Do not spray pastures containing desirable forbs, especially legumes, unless injury can be tolerated. However, the stand and growth of established perennial grasses is usually improved after treatment, especially if rainfall is adequate for active plant growth and grazing is deferred.
- Grasses are tolerant to Transline, but new grass seedlings may be injured to varying degrees until well established as evidenced by development of secondary roots and tillering (multiple stems).
- Do not use hay or straw from treated areas for garden mulch on susceptible broadleaf crops.
- **Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, wait 1 year before repeating bioassay or plant a crop tolerant to clopyralid such as barley, canola (rapeseed), grasses, field corn, oats, sugar beets, or wheat.

Avoiding Injury to Non-Target Plants

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Therefore, do not apply Transline directly to, or allow spray drift to come in contact with, vegetables, flowers, tomatoes, potatoes, beans, lentils, peas, alfalfa, sunflowers, soybeans, safflower, or other desirable broadleaf crops or ornamental plants. Small areas of new legume seedlings should be established prior to seeding more extensive areas in order to determine if phytotoxic residues are present in the soil of previously treated areas at levels that could inhibit legume establishment.

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Unless otherwise specified on this label or supplemental labeling for Transline, do not apply this product to any broadleaf crop or ornamental planting or to areas where sensitive plants will be planted during the same growing season. (See guidance on Rotation to Broadleaf Crops.)

Residues in Plants or Manure: Do not use plant residues, including hay or straw from treated areas, or manure or bedding straw from animals that have grazed or consumed forage from treated areas, for composting or mulching, where susceptible plants may be grown the following season. Do not spread manure from animals that have grazed or consumed forage or hay from treated areas on land used for growing susceptible broadleaf crops. To promote herbicidal decomposition, plant residues should be evenly incorporated or burned. Breakdown of clopyralid in crop residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.

Avoid Spray Drift

Avoid spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible broadleaf plants during active growth or dormant periods. Use coarse sprays to minimize drift. To aid in further reducing drift, a drift control or deposition agent suitable for agricultural use may be used with this product. If used, follow all use recommendations and precautions on the product label.

Ground Application: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible, by applying 10 gallons or more of spray per acre, by keeping the operating spray pressures at the manufacturer's minimum recommended pressures for the specified nozzle type used (low pressure nozzles are available from spray equipment manufacturers), and by spraying when the wind velocity is low (follow state regulations). Avoid application under completely calm conditions which may be conducive to air inversion. In hand-gun applications, select the minimum pressure required to obtain adequate plant coverage without forming a mist. **Do not apply with a mist blower.**

Aerial Application: With aircraft, drift can be lessened by using straight stream nozzles directed straight back; by using a spray boom no longer than 3/4 of the rotor or wing length of the aircraft; by using drift control systems or drift control additives; and, by keeping spray pressures low enough to provide coarse spray droplets. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions.

Do not apply by aircraft when an air temperature inversion exists. Such a condition is characterized by little or no wind and lower air temperature near the ground than at higher levels. The use of a smoke device on the aircraft or continuous smoke column at or near site of application will indicate air direction and velocity, and whether a temperature inversion is present, as indicated by horizontal layering of the smoke.

Sprayer Clean-Out

To avoid injury to desirable plants, equipment used to apply Transline should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly at least 3 times with water after use. Dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15-20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Remove nozzles and screens and clean separately.

Mixing Instructions

Water Dilution - To prepare a water dilution of Transline:

1. Add 3/4 of the required spray volume to the spray tank and start agitation.
2. Add the required amount of Transline.

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3. Add any surfactants, adjuvants or drift control agents according to manufacturer's label.
4. Agitate during final filling of the spray tank and maintain sufficient agitation during application to ensure uniformity of the spray mixture.

Note: Allow time for thorough mixing of each spray ingredient before adding the next. If allowed to stand after mixing, agitate spray mixture before use.

Tank Mixing

This product may be applied in tank mix combination with labeled rates of other products provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See instructions for Sprayer Clean-Out.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of Transline and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in the required order and their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jets, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Application Directions

Application Timing

Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following application may reduce weed control. Only weeds that have emerged at the time of application will be affected. Wet foliage at the time of application may decrease control. Applications of Transline are rainfast within 2 hours after application.

Application Rates

Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of susceptible weed species. For less sensitive species, perennials, and under conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds), the higher rates within the rate range will be needed.

Use of Adjuvants

Addition of surfactants, crop oils, or other adjuvants may increase effectiveness of Transline. If an adjuvant is added to the spray solution, follow all manufacturer use guidelines.

Spray Coverage

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Do not broadcast apply in less than 2 gallons of total spray volume per acre. For best results and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoiding Injury to Non-Target Plants.

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Cut Surface Treatments

Apply Transline in rights-of-way, natural areas and other non-crop areas to control unwanted trees and vines in the legume family such as mimosa, locust, redbud, or wisteria.

Stump Treatment

Spray or paint the cut surfaces of freshly cut stumps and stubs with undiluted Transline or with a 50/50 mix of Transline and water. The cambium area next to the bark is the most vital area to wet. This should be done as soon as the tree or vine has been cut.

Broadleaf Weeds Controlled

acacias	locoweed, white
artichoke, Jerusalem	locoweed, lambert
buckwheat, wild	marshelder
buffalobur †	mesquite
burdock, common	nightshade, eastern black
chamomile, false (scentless)	nightshade, cutleaf
chamomile, mayweed (dogfennel)	nightshade, hairy
clover, black medic	oxeye daisy
clover, hop	pineappleweed
clover, red	ragweed, common
clover, white	ragweed, giant
cocklebur, common	salsify, meadow (goatsbeard)
coffeeweed	sicklepod
cornflower (bachelor button)	smartweed, green †
dandelion	sorrel, red
dock, curly	sowthistle, annual
groundsel, common	sowthistle, perennial †
hawksbeard, narrowleaf	starthistle, yellow
hawkweed, orange	sunflower (common and wild)
hawkweed, yellow	teasel, common
horseweed	thistle, artichoke
jimsonweed	thistle, bull
knapweed, diffuse	thistle, Canada (rosette to bud)
knapweed, Russian †	thistle, musk (rosette to bud)
knapweed, spotted	thistle, Italian
	vetch
ladysthumb †	
lettuce, prickly	

† These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree and duration of weed control will vary with weed size and density, application rate and coverage, and growing conditions before, during, and after treatment. For perennial weeds such as Russian knapweed and perennial sowthistle, Transline will control the initial top growth and inhibit regrowth during the season of application (season-long control). At higher use rates shown on this label, Transline may cause a reduction in shoot regrowth in the season following application; however, plant response may be inconsistent due to inherent variability in shoot regrowth from perennial root systems.

Woody Plants and Vines Controlled

eastern redbud	mimosa (silktree)
kudzu	wisteria
locust (spp)	

Broadleaf Weeds Controlled (California Only)

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knapweed, diffuse	thistle, artichoke
knapweed, Russian †	thistle, Canada (rosette to bud)
knapweed, spotted	thistle, Italian
starthistle, yellow	thistle, musk (rosette to bud)

† These weeds may only be suppressed. Suppression is a visual reduction in weed competition (reduced population or vigor) as compared to untreated areas. The degree and duration of weed control will vary with weed size and density, application rate and coverage, and growing conditions before, during, and after treatment.

Non-Cropland Use (All States Except California)

For use on non-cropland areas, such as industrial manufacturing and storage sites, and rights-of-way, such as along roadsides, electrical power lines, communication lines, pipelines and railroads, including grazed areas on these sites and forest spot application adjacent to these sites.

Broadcast Application (Ground or Aerial)

For control of broadleaf weeds, apply 1/4 to 1 1/3 pint per acre of Transline [equivalent to 0.09 to 0.5 lb acid equivalent (a.e.) per acre]. Non-ionic surfactant should be used in spray mixtures at 1 to 2 quart per 100 gallons of spray mixture. The lower rate of 1/4 pint per acre provides acceptable control of weeds only under highly favorable plant growing conditions and when plants are no larger than 3 to 6 inches tall. Where Canada thistle or knapweed is the primary pest, best results are obtained by applying 2/3 to 1 1/3 pint per acre of Transline after basal leaves are produced. Transline can be applied in an invert emulsion using oil and an appropriate inverting agent. Follow label directions of the inverting agent. Established grasses are tolerant to Transline, but new grass seedlings may be injured to varying degrees until the grass has become well established as indicated by vigorous growth and development of tillers and secondary roots.

High-Volume Leaf Stem Treatment (Ground Application)

For control of broadleaves and certain woody plants (e.g., mesquite), use 1 to 3 quart of Transline per 100 gallons of total spray. Thorough coverage is necessary for good results; therefore, apply as a complete spray-to-wet foliar application, including all leaves, stems, and root collars, but not to exceed a total application rate of more than 1 1/3 pint per acre of Transline. To minimize drift, use low spray pressure and keep sprays no higher than the tree crowns. Trees taller than 8 feet in height may be difficult to treat efficiently and obtain thorough coverage.

Unsatisfactory control may result if application is made when brush and weeds are under severe drought stress or other adverse conditions that inhibit plant growth. Environmental conditions may significantly influence results. For best results on mesquite, apply in the spring or early summer, 40 to 90 days after the first green growth appears and when soil moisture is adequate for active growth. A soil temperature of 75 to 83°F at a depth of 12 to 18 inches is optimal for good plant kills. Soil temperature of less than 75°F at this depth will reduce the ultimate root kill of mesquite.

Non-Cropland Use (California Only)

For use on non-cropland areas, such as industrial manufacturing and storage sites, and rights-of-way, such as along roadsides, electrical power lines, communication lines, pipelines and railroads, including grazed areas on these sites and forest spot application adjacent to these sites.

Broadcast Application (Ground or Aerial)

For control of broadleaf weeds, apply 1/4 to 2/3 pint per acre of Transline (equivalent to 0.09 to 0.25 lb a.e. per acre). Non-ionic surfactant should be used in spray mixtures at 1 to 2 quart per 100 gallons of spray mixture. The lower rate of 1/4 pint per acre provides acceptable control of weeds only under highly favorable plant growing conditions and when plants are no larger than 3 to 6 inches tall. Where Canada

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thistle or knapweed is the primary pest, best results are obtained by applying 2/3 pint per acre of Transline after basal leaves are produced. Spray volumes of 20 gallons or more per acre for ground roadside and right-of-way applications and spray volumes 5 gallons or more per acre for aerial applications will ensure adequate coverage. Transline can be applied in an invert emulsion using oil and an appropriate inverting agent. Follow label directions of the inverting agent. Established grasses are tolerant to Transline, but new grass seedlings may be injured to varying degrees until the grass has become well established as indicated by vigorous growth and development of tillers and secondary roots.

Forest Sites, Including Tree Plantings

Transline may be applied for control of certain problem weeds growing in forest sites, including tree plantings. Transline should be applied either at site preparation or after trees are planted (tree release). Transline applications over the top of tolerant tree species may be made anytime during the season; however, some needle/leaf curling may occur if applied during active tree growth. This effect is transient and trees should recover by the end of the same growing season or early in the following growing season.

Examples of tolerant tree species:

- | | | | |
|-------------------|----------------|--------------------|-------------------|
| black walnut | green ash | Norway spruce | sugar maple |
| bur oak | hackberry | Pacific silver fir | sumac |
| cherry | hickory | ponderosa pine | sycamore |
| cherry bark oak | hybrid aspen | red oak | Virginia pine |
| choke cherry | hybrid poplar | red pine | Western red cedar |
| cottonwood | incense cedar | Russian olive | Western hemlock |
| crabapple | loblolly pine | sawtooth oak | white ash |
| Douglas fir | lodgepole pine | Scotch pine | white pine |
| Eastern red cedar | longleaf pine | slash pine | white spruce |
| European larch | noble fir | shortleaf pine | white oak |
| grand fir | | | |

Broadcast Applications: Apply the required amount of Transline in 5 gallons or more of water per acre to achieve thorough and uniform spray coverage of target weeds using ground equipment or helicopter.

Transline will not control mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian thistle and bindweed.

Weed Species	Application Rate (pint/acre)	Application Timing
general weed control	1/4 - 1 1/3	Apply when weeds are small and actively growing. The lower rate of 1/4 pt/acre provides acceptable control of weeds only under highly favorable plant growing conditions and when weeds are no more than 3 - 6 inches tall.
knapweed, diffuse knapweed, spotted thistle, Canada	1/3 - 1 1/3	For best results, apply after the majority of basal leaves have emerged, up to early bud stage. Treatments applied prior to the emergence of the majority of basal leaves or at later growth stages may result in only partial control.
hawkweeds starthistle, yellow thistle, bull thistle, musk	2/3 - 1 1/3	For best results, apply from rosette to bolting stage of growth.
kudzu [†]	2/3 - 1 1/3	Applications are most effective between late June and early October as long as the kudzu are actively growing and not under drought stress. The ideal time

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		to apply is during vigorous growth and just prior to or during flowering.
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[†]To control kudzu in Florida, Transline can be used only in the following counties: Bay, Bradford, Calhoun, Escambia, Franklin, Gadsden, Gulf, Hamilton, Holmes, Jackson, Jefferson, Lafayette, Leon, Liberty, Madison, Okaloosa, Santa Rose, Suwannee, Taylor, Wakulla, Walton, and Washington.

Spot Application: Spot applications should be applied at an equivalent broadcast rate. Follow instructions for hand-held sprayers below. Direct spray onto weeds and avoid spraying trees where possible.

Hand-Held Sprayers: Hand-held sprayers may be used for spot applications of Transline if care is taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on an area of 1000 sq ft. Mix the amount of Transline (fl oz or ml) corresponding to the desired broadcast rate in 1 gallon or more of spray. To calculate the amount of Transline required for larger areas, multiply the table value (fl oz or ml) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (calculation, 3500 ÷ 1000 = 3.5). An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Amount of Transline to Treat an Area of 1000 sq ft (mix in 1 gallon or more of spray)		
2/3 pt/acre	1 pt/acre	1 1/3 pt/acre
1/4 fl oz (7.9 ml)	3/8 fl oz (11 ml)	1/2 fl oz (15 ml)

[†]1 fl oz = 29.6 (30) ml

Tank Mixing: Transline may be applied in tank mix combination with Accord Concentrate, Accord SP, Arsenal A.C., Garlon[®] 4, Garlon 3A, Glypro[®], Glypro Plus, 2,4-D, atrazine, Oust or Velpar DF herbicides as per label directions for forest site uses. Carefully follow applicable use directions, precautions and limitations on the product labels of each tank mix product used because products other than Transline may cause injury when Transline could be used alone without injury.

Specific Use Precautions:

- Applications of Transline over actively growing conifers may cause some needle curling. Tree injury in the form of needle curling may be increased by the addition of a surfactant or crop oil with broadcast applications of Transline. Do not use a surfactant or crop oil unless previous experience shows such injury can be tolerated.
- Application of Transline to broadleaf (hardwood) tree species may cause some leaf burning and malformation. This injury is transient in nature, except plants in the legume family (see below). Addition of surfactant or crop oil may increase the severity of this injury.
- True firs (grand, noble, and pacific silver firs) show more needle curling than other conifers when higher rates are used. Use lower rates in rate range for broadcast applications or use directed sprays where possible if needle curling is undesirable.
- Application of Transline to plants in the legume family (such as locust, redbud, mimosa and lupine) or to box elder, persimmon or sassafras will cause severe damage or destruction of such plants.
- Do not use in forest nursery beds.

Rangeland and Permanent Grass Pastures

(For use in western states, including California, Colorado, Idaho, Montana, Nebraska, Nevada, Oregon, South Dakota, Utah, Washington and Wyoming ONLY)

Use Transline to control susceptible broadleaf weeds on rangeland areas or established forage grasses in permanent grass pastures. Best results on most weeds are obtained when weeds are small and actively

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growing (see specific information below) and application is made in 10 gallons or more per acre of water using ground equipment.

There are no grazing or haying restrictions following Transline applications when used at labeled rates.

Application Rates

Apply Transline at a rate of 1/3 to 1 1/3 pint per acre when weeds are young and actively growing. Transline may be applied as described below for control of spotted and diffuse knapweed, Canada thistle, musk thistle, yellow starthistle and suppression of Russian knapweed. Use the lower labeled application rate for young, actively growing weeds. The higher rate should be used under less favorable growing conditions or on dense weed stands and/or larger weeds. Transline may also be tank mixed with 2,4-D at 1/2 to 1 lb a.e. per acre where weed species present are susceptible to 2,4-D.

Weed Species	Application Rate (pint/acre)	Application Timing
thistle, musk	1/3 - 1 ¹	Apply from rosette to early bolt growth stage.
thistle, artichoke thistle, Italian	1/3 - 2/3	Apply at the rosette growth stage.
starthistle, yellow	1/2 - 1	Apply from rosette to mid-bolt growth stage
knapweed, diffuse knapweed, spotted	2/3 - 1	Apply any time plants are actively growing, including fall regrowth. Optimum time is from mid bolt to late bud stage of growth.
thistle, artichoke thistle, Italian	2/3 - 1	Apply during the bolting growth stage.
thistle, Canada	2/3 - 1 1/3	Apply after the majority of basal leaves have emerged through the beginning of the bud stage. Treatment may also be applied to fall regrowth
knapweed, Russian (suppression)	1 - 1 1/3	Apply from bud to mid-flower growth stage or treat fall regrowth.

¹Transline may be applied to musk thistle in the rosette stage at 1/3 pint per acre only when applied in tank mixture with 2,4-D at 1/2 to 1 lb a.e. per acre. Otherwise, apply Transline to musk thistle at 2/3 to 1 pint per acre.

Cottonwood/Poplar and Eucalyptus Tree Plantations

Transline may be used for selective postemergence control of labeled broadleaf weeds in new and established plantings of cottonwood/poplar and eucalyptus tree plantations. Apply as a broadcast foliar spray over trees or as a banded or directed spray at a rate of 1/3 to 2/3 pint per acre. Apply in 10 gallons or more per acre total spray volume using ground equipment only. Multiple applications may be made as long as the total rate per annual use season does not exceed 1 1/3 pint per acre. Apply to new plantings only after they are well-established as indicated by several inches of new healthy growth.

Hand-Held Sprayers

Spot applications using hand held equipment are also allowed, but contact with tree foliage should be avoided or limited to lower branches. Apply to weeds on a spray-to-wet basis with spray coverage uniform and complete. Do not spray to the point of runoff. Prepare a spray solution by adding 1/4 fl oz Transline per gallon of water. When applied at 1 gallon of spray per 1000 sq ft, this spray concentration is equivalent to a broadcast rate of 2/3 pint per acre.

Specific Use Precautions:

- Do not tank mix Transline with other herbicides labeled for this use unless spray avoids all contact with tree foliage.
- Transline will not control certain broadleaf weeds, including mustards, henbit, chickweed, kochia, lambsquarters, pigweed, Russian thistle and bindweed.

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